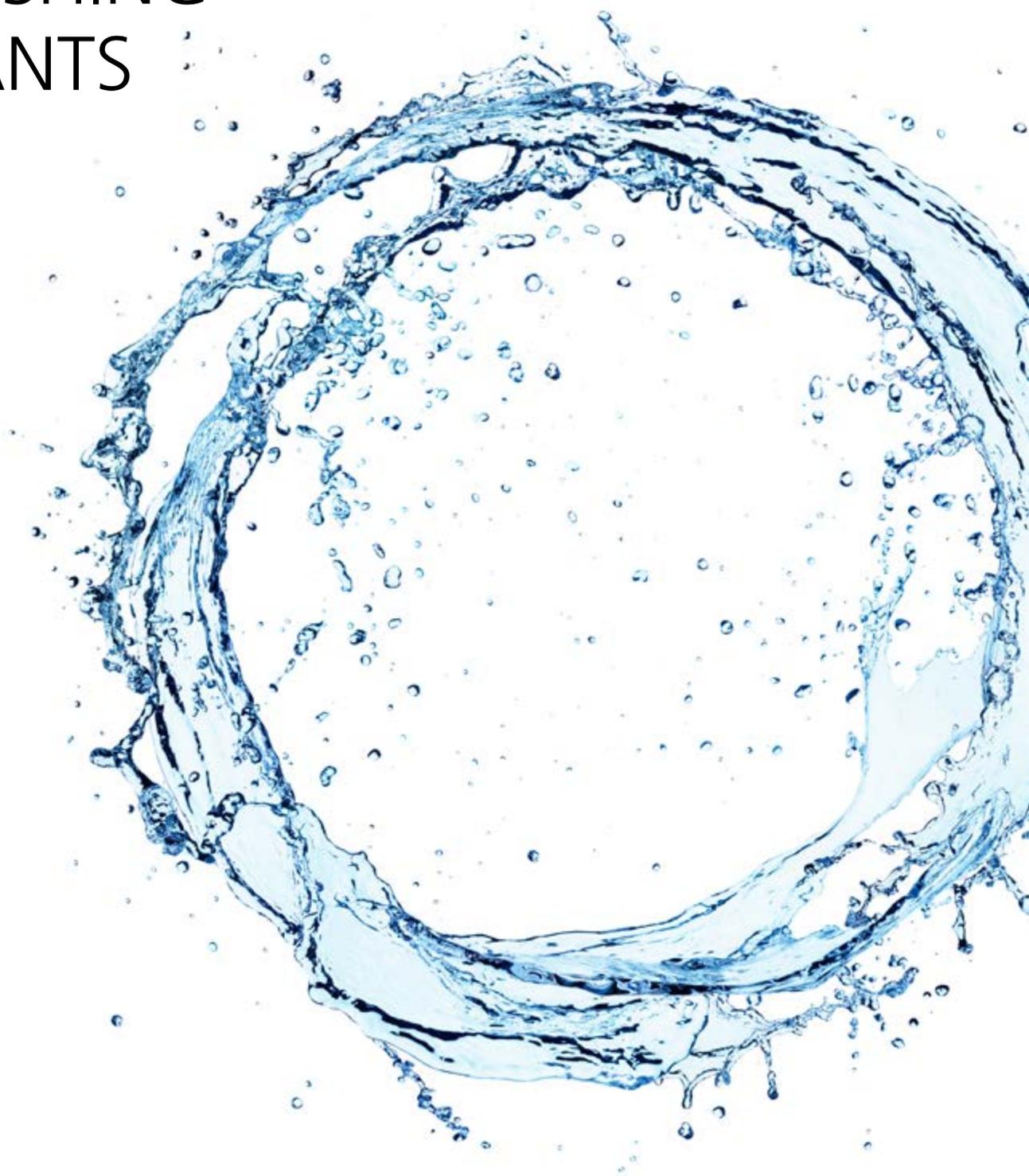


# INDUSTRIAL WASHING PLANTS





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## PRESENT ON THE MARKET OF INDUSTRIAL WASHING PLANTS FOR OVER 50 YEARS

# OMZ

### Who we are

OMZ Srl is a company present in the sector of industrial washing systems for over 50 years. After having developed a wide range of **rotating washing equipment** in the 70s, as the first in Europe, it has directed its activity in the design sector and construction of high pressure washing systems, aimed at the internal and external cleaning of **tankers, rail tankers, chassis of road and rail vehicles.**

### Our philosophy

The customer first of all. Since the beginning, OMZ Srl has always had in customer care, its ultimate goal and the purpose of its activities, through the simplification of processes and innovation, with a logic of continuous improvement. Every aspect is deepened and developed by the expert members of our team with the utmost professionalism, to meet every need, from the simplest to the most complex.





ITALY,  
 SPAIN, PORTUGAL,  
 FRANCE, SWITZERLAND, AUSTRIA,  
 HUNGARY, RUSSIA, BELGIUM, HOLLAND,  
 ENGLAND, IRELAND, LITHUANIA,  
 UKRAINE, ROMANIA, BELARUS,  
 SERBIA, MONTENEGRO, GERMANY,  
 CROATIA, GREECE, BOSNIA,  
 CZECH REPUBLIC, SLOVAKIA,  
 SLOVENIA, POLAND, TURKEY,  
 AUSTRALIA, COLOMBIA, BRAZIL, CHILE,  
 DOMINICAN REPUBLIC, PANAMA.

● THE PRESENCE OF OMZ ON THE WORLD MARKET

01

## INTERNAL WASHING SYSTEMS FOR TANKS



OMZ manufactures and installs internal washing systems for tanks, whether they are used for the transport of food and / or chemical products.

The systems are made with one or more washing lanes, with pressurized hot water, detergent and steam. The washing lines are equipped with **4/5 rotating washing heads** as well as an additional one to intervene on the ISO TANK.

The systems are **managed by a software system**, which allows you to enter washing programs, create a history of interventions, evaluate consumption for each intervention and extrapolate the data for the cleaning certificate on the EFTCO form. **All our systems are complete with a direct remote assistance device, from the OMZ headquarters.**

02

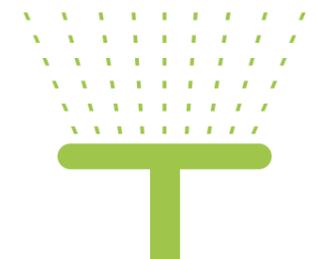


02

## INTERNAL WASHING SYSTEMS FOR RAILWAYS

Also for the cleaning of the tanks, OMZ also took charge of the construction of **complete systems for the internal washing of railway tanks**, used for the transport of foodstuffs, chemicals and petroleum products.

For this use it made an apparatus with opening arms, each equipped with a rotating head. The plant is powered by systems identical to those in use for washing road tanks.



03

## INDUSTRIAL VEHICLES EXTERNAL WASHING SYSTEMS

As part of the tank washing we have created, in addition to the internal cleaning system, complete systems for external washing, favoring the action of high pressure for this

operation. We have created two types of systems: one at a fixed location with a vehicle in transit and one with a vehicle in a fixed location and a mobile washing arch.



04



04

## UNDERBODY WASHING SYSTEMS FOR INDUSTRIAL AND RAILWAY VEHICLES

To complete **the cleaning of industrial vehicles**, we have created an automatic chassis washing system, given by a mobile trolley, equipped with two of our rotating heads, which **intervenes in all parts of the vehicle**, removing all types of sediment and salt during the cold periods.

The system is mounted inside a pit for this purpose, usually built in the same site as the external washing.

There is also a **fixed model**, with vehicle in transit over two washing heads, of our production, to be mounted at the entrance of the external washing station.

## MANUAL HIGH PRESSURE INDUSTRIAL WASHING SYSTEMS AT MULTIPLE STATIONS

Among the range of systems produced by OMZ srl, particularly significant is that relating to centralized washing, intended for activities in which there are a series of workstations, on which to intervene, with the aid of a washing lance, for cleaning parts, rather than of premises, machines, equipment, etc.

The system consists of a multipump unit, designed to achieve the desired simultaneous washing, operating with pumps in cascade, depending on the flow requirements, linked to the operations in progress. The systems can be hot and/or cold water, with the use of detergents.



## SYSTEMS FOR THE INTERNAL WASHING OF WASTE COLLECTION MEANS

Designed and created entirely by OMZ technicians, the washing system dedicated to vehicles used for the collection and compaction of waste is aimed in particular at companies that deal with public sanitation services within municipalities.

These washing systems have been designed to allow thorough and complete cleaning of both the external structure of the vehicle and the compartment intended for the collection / compacting of waste. To carry out a thorough cleaning and sanitization of the compaction compartment, an articulated hydraulic arm is used, equipped at the end with a Rotating Cleaner entirely made of stainless steel with nozzles for the discharge of the water jet which is activated and guided from the outside, by protected location.



## TANK AND IBC DRYING SYSTEMS

After washing, especially for Silos tanks, the drying of the internal surfaces is required.

OMZ produces two systems of drying plants, one, which starts from the assumption of having steam available, for the generation of hot air and another, autonomous, with a gas or diesel burner.



Both systems feed devices, made to flow in a line parallel to that of the washing heads, with which the hot air, filtered according to the standards set by food and chemical companies, is introduced into the tank.

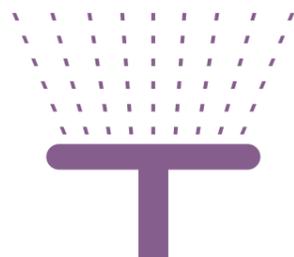


## IBC WASHING SYSTEMS AND SMALL CONTAINERS

In the marketing and sale of liquid products, for chemical and food activities, recyclable containers with capacities from 1000 liters (IBC), up to 30/50 liters (drums) are increasingly used.

**Since these containers are recyclable, maximum cleanliness must be guaranteed in a short time and with low consumption before re-use.**

To allow the washing operations of these containers, by virtue of their small size, OMZ has first created a series of specific rotating heads, both reaction and motorized, and subsequently complete structures to meet the daily needs of the individual realities. The systems work with hot and cold water, with detergent substances added in the right quantity to the washing water, as well as final drying systems.



09

# TANK CONTAINER HEATING SYSTEMS

Fully automatic heating systems that do not require the presence of the operator to attend the operations.

Each heating point is complete with: steam interception valve, pressure reducer, 24V ON/OFF solenoid valve pressure gauge, Wireless temperature sensor.

The whole system is managed by a control panel, which allows the automatic operations and the download of a file, indicating the times used for the operations of each single station.

The systems can be steam with reduced pressure or with hot water.

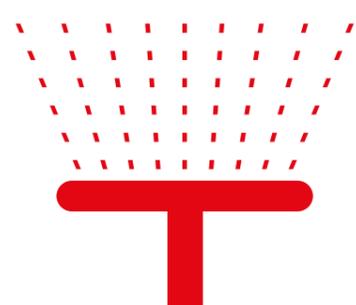


10

# "TREATMENT" PLANTS LATEX CONTAINERS

Particularly difficult and burdensome is the internal washing of the tanks which have Latex pollution inside them.

To meet the needs of our customers, **OMZ has created a machine which, by recirculating a particular solution at a controlled temperature, quickly solves the cleaning of tanks**, even those with old encrustations, without being obliged to part of the operator to enter, to scratch the walls.



## TANK PICKLING PLANTS

The tanks and tanks subjected to the heating of the transported product, in the long run, have the internal surface in stainless steel, completely amber, which, even if the tank is clean, gives an ugly appearance in the eyes of the inspectors, who must inspect the itself to give the green light to the new cargo.

This inconvenience can now be overcome with the new equipment that we have put into production.



In essence, this is a trolley-mounted tank in stainless steel with a capacity of 250 liters, inside which a special liquid for pickling, which is normally found on the market, will be placed.

The tank is equipped with a pneumatically operated diaphragm pump, specific for aggressive products.

The pump, fed with compressed air at 6 bar, will feed a number of washing heads at the user's discretion, also pneumatically operated (our EP Series) designed to diffuse the aforementioned product inside the tank.

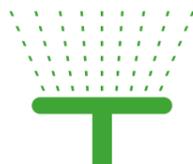
The liquid sprayed inside the tank will be returned to the wheeled tank and placed in circulation.

The operation will last about 6/8 hours and in the end the tank will be returned to its new splendor. After the treatment, a rinse with warm water and an alkaline detergent is sufficient.

## MOBILE UNIT FOR TANK PRE-TREATMENT

In many realities, even today, the pre-treatment operations with solvent of the tanks are carried out, before proceeding to the washing, in an empirical and often not safe way.

To solve the problem, OMZ srl, always attentive to the problems of the sector, has created a complete and mobile equipment, for the pretreatment of the tanks with acetone or other solvents, responding to the needs of the sector, in total safety.



## TECHNICAL ROOM FOR TANK WASHING SYSTEMS

For the power supply of its plants, it builds **thermal and pumping plants**, complete with steam boiler, heat exchangers, groups high pressure pump, dosing pumps and electrical panel of the power plant, inside buildings prepared for the purpose, **certifying the same**, through a Notified Body, according to the EC directive 2014/68 / EU, PED.



## TECHNICAL ROOMS IN CONTAINER



If rooms for the installation of the thermal and pumping plant are not available, **OMZ** prepares 20-foot containers, for the purpose, completely insulated, class 0 of fire resistance, complete with lighting system and ventilation outlets.



For the supply of our washing systems we adopt devices and equipment for the production of hot water and steam, in harmony with the European directives that regulate their construction and determine their safety.

For the above we produce:

**Instant steam production boilers**, with production times from 400 to 3000 kg per hour, with pressures up to 11.5 bar, complete with gas or diesel burner and free from stokers. All our boilers are certified according to the European directive PED n° 68/2014.



**Stainless steel shell and tube heat exchangers**, fed in the primary circuit with steam with a maximum pressure of 16 bar and in the secondary circuit with pressurized cold water, up to 150 bar, with flow rates up to 180 liters per minute. The exchangers are used for the production of instant hot water, at the desired temperature, to be sent to the internal tank washing lines. The exchanger fully exploits the thermal power of the steam, returning the condensate produced, inside the supply tank of the steam boiler and is complete with all the safety devices required by the PED directive, indicated for steam boilers.



**Water-steam mixer**, used for the production of hot water, to be stored inside an insulated stainless steel tank, with which to feed pump groups, to be fed to manual washing lances.



**Assemblies consisting of a primary hot water production boiler**, complete with primary and secondary circuit connected to stainless steel plate exchangers, for the production of hot water for IBC, Chassis and manual lances washing systems in considerable numbers.



## HOT / COLD HIGH PRESSURE PUMP UNITS

To power our washing systems, we make hot and cold water pump groups. Our groups are all fitted with high quality components, made in compliance with the European regulations related to them.

### Special very high pressure pump groups, up to 1000 bar

Pump groups for particular uses, where the contribution of pressure must have a primary role. These technologies adopt particular safety and assembly systems that reflect the technical requirements for powering the pumps and for the electrical power to be installed.



### Hot water pump units for industrial use, complete with oil burner

several models are available. There is the **170 liter per minute** version, at 110 bar, with a 50 Hp motor with frequency variator. And one that provides **100 liters per minute**, 100 bar, with and without frequency variator. A version of 38 liters and 150 bar is relegated to manual washing using lances or for the internal washing of IBCs.

### Dosing pump units for detergent injection in high, medium and low pressure circuits

These equipments are mainly used on tank washing systems, where they guarantee the possibility of adding any type of detergent to the washing water, since it is not subject to the passage through high pressure pumps, boilers and heat exchangers. The detergent, in fact, at the desired percentage, is introduced directly on the high pressure line, exiting from the technical room.



# 15 ROTATING WASHING HEADS

## LC SERIES



### AVAILABLE IN 3 VERSIONS

Washing equipment functioning by reaction, made entirely of stainless steel, with protective casing in special plastic material.

**Minimum operating parameters:** 30 liters per minute, pressure between 40 and 250 bar, hot or cold water, indifferently.

**Use:** in its rotation it delivers water over 180°, thus adapting to the internal cleaning of waste bins and open-air tanks.

## TW SERIES



### AVAILABLE IN 22 VERSIONS

Washing equipment operating only by reaction, made entirely in stainless steel or with aluminum parts, where it is necessary to reduce weight.

Available equipped with two up to four nozzles.

**Minimum operating parameters:** 20 liters per minute, pressure between 40 and 300 bar, indifferently hot or cold water.

**Use:** they are aimed at washing uneven floors such as chassis of industrial vehicles, uneven bodywork, panels, facades, etc.

## W SERIES



### AVAILABLE IN 22 VERSIONS

Made entirely of stainless steel. It works by reaction of the water coming out of its nozzles.

**Minimum operating parameters:** 20 liters/minute and pressure between 40 and 250 bar, hot and cold water indifferently.

**Use:** internal washing of tanks and reservoirs.

## TRK SERIES



Made of stainless steel, operated by turbine.

**Minimum operating parameters:** 25 liters/minute and minimum pressure 100 bar, hot and cold water indifferently.

**Use:** internal cleaning of tanks for the food and pharmaceutical industry.

## GV SERIES



Made of stainless steel. It works by reaction of the water coming out of its nozzles.

**Minimum operating parameters:** 200 liters/minute and pressure between 5 and 25 bar, hot and cold water indifferently.

**Use:** internal washing of large volume tanks.

## WZ SERIES



### AVAILABLE IN 10 VERSIONS

Made of stainless steel.

It works only for the reaction of the water coming out of its nozzles.

**Minimum operating parameters:** flow rate 20 liters/minute, pressure between 40 and 250 bar, hot or cold water, indifferently.

**Use:** particularly suitable for the internal cleaning of small mobile containers, such as IBCs.

## EP SERIES



### AVAILABLE IN 31 VERSIONS

Moved by pneumatic motor fed with compressed air at 6 bar or by 24V electric motor.

**Minimum operating parameters:** flow rate 5 liters/minute, pressure from 5 to 250 bar, hot or cold water indifferently.

**Use:** internal cleaning of small containers

Equipment available in ATEX version

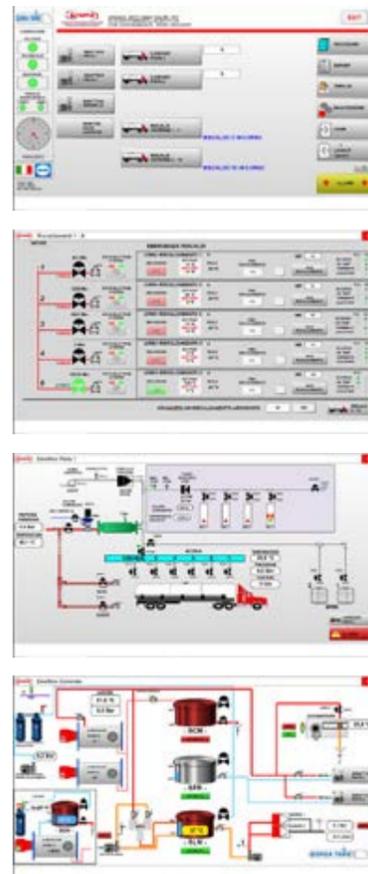
## REMOTE ASSISTANCE

Through remote assistance **we support the customer in the normal difficulties that may arise** during daily operations. In addition, a dedicated WhatsApp channel is created to support the customer, in order to speed up checks as much as possible and carry out a diagnosis.



## WASHING SYSTEM MANAGEMENT SOFTWARE

Our washing systems, especially those for tank remediation, are complete with advanced and easy-to-use software, with which to determine: execution time of each washing phase, relative temperature, addition of detergent with relative percentage. These systems **guarantee certain execution times and calculation of costs for each intervention**, as well as making other related data available, from **maintenance deadlines** for each individual component to the **traceability of the tank** and the **printing of the cleaning certificate on the EFTCO form**



## MAINTENANCE

Today the "service" given to customers is a **plus which technology manufacturers use to give their products reliability over time and to give the end customer the certainty of being constantly followed.**

Normal maintenance is an activity that must be planned with the annual sending of customized maintenance contracts, thanks to which, our technicians visit the installations twice a year, fully verifying the assemblies and carrying out normal maintenance periodic.

To the subscribers of these contracts, OMZ guarantees an average time for any extraordinary interventions of 24/36 hours.



**OMZ personnel, dedicated to these tasks, have been trained directly in the company and have at their disposal fully equipped and autonomous mobile workshops, as well as the most modern equipment for checking the machine plate parameters.**

The geographical coverage of our assistance service is identical to that relating to the points where the asset was sold, therefore certain that an OMZ system will never be left to fend for itself.



For the maintenance of the plants abroad, OMZ has prepared 10-foot containers, equipped like the vans mentioned above and deposited in strategic points of the European territory, with the aim of always intervening, in the shortest possible time and in any case, at internal of the times set out above.

# CERTIFICATIONS



## ATEX



## PED



## PRODUCTION QUALITY





## INDUSTRIAL WASHING PLANTS



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